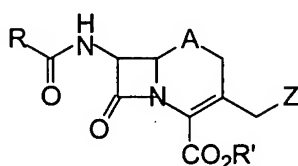


IN THE CLAIMS

Please amend claims 1-3 and add the new claims 16-24 as shown below:

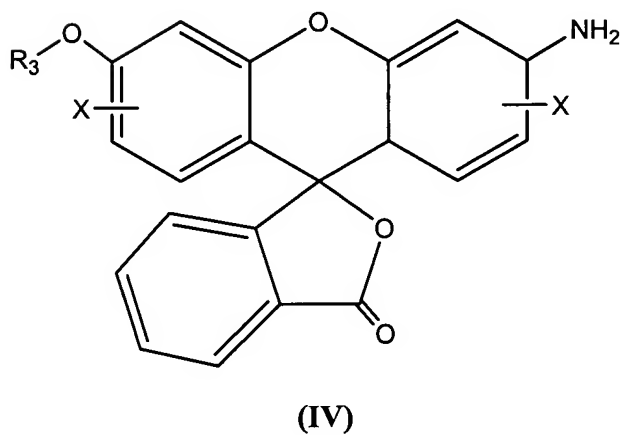
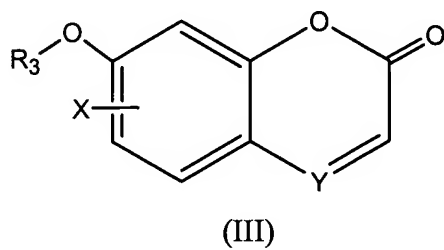
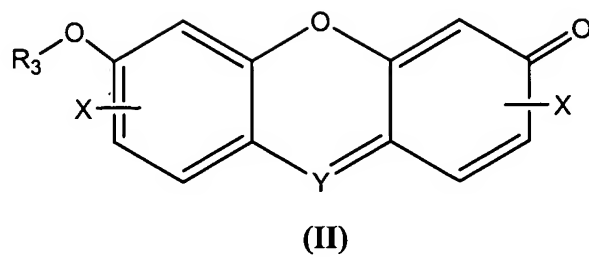
1. (Currently amended) A compound having the formula:

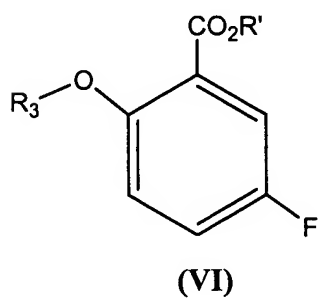
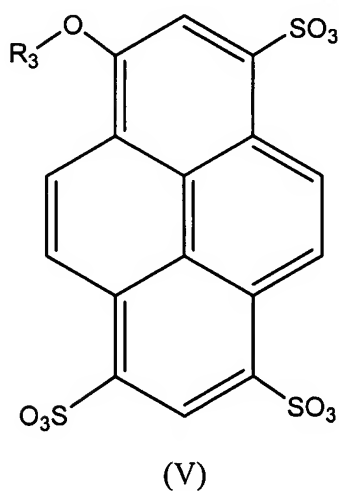
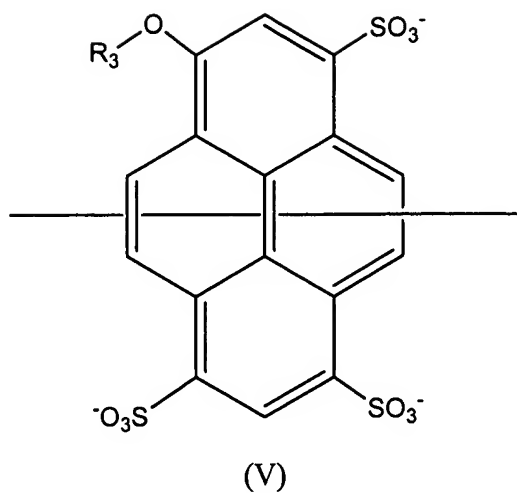


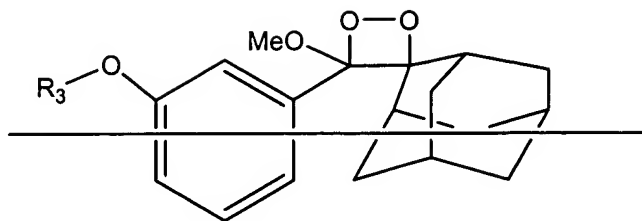
(I)

in which R is a benzyl, 2-thienylmethyl, or cyanomethyl group; R' is selected from the group consisting of H, alkyl, physiologically acceptable salts or metal, an ammonium cation[[s]], --CHR₂OCO(CH₂)_nCH₃, --CHR₂OCOC(CH₃)₃, in which R₂ is selected from the group consisting of H, ~~and~~ lower alkyl, thioacetyl ~~acylthiomethyl~~, ~~acyloxy~~-alpha-acyloxy-benzyl, deltabutyrolactonyl, methoxycarbonyloxymethyl, phenyl, methylsulphinylmethyl, β-morpholinoethyl, dialkylaminoethyl, and dialkylaminocarbonyloxymethyl, ~~and n is from 1-4~~; A is selected from the group consisting of S, O, SO, SO₂ and CH₂; and Z is a donor fluorescent moiety.

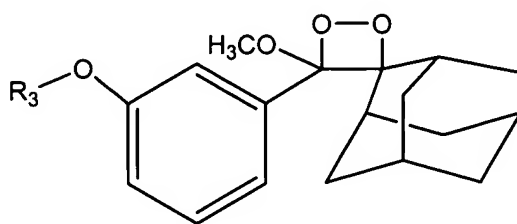
2. (Currently amended) The compound of claim 1, wherein the donor fluorescent moiety is selected from the group consisting of:



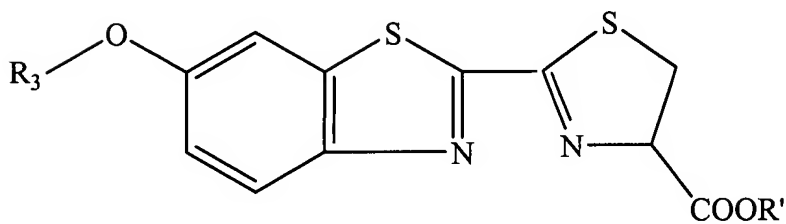




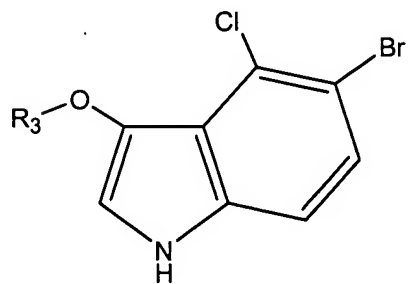
(VII)



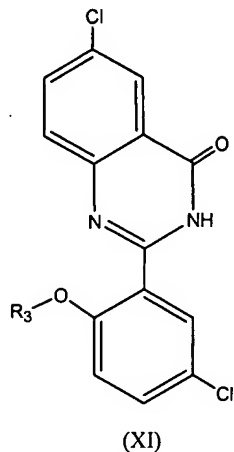
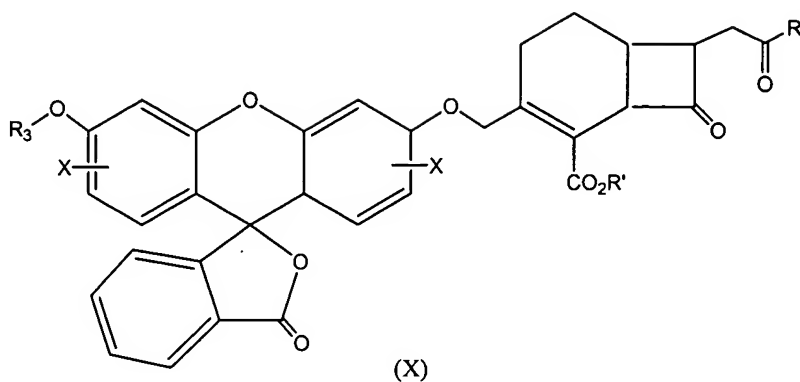
(VII)



(VIII)

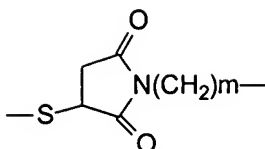


(IX)



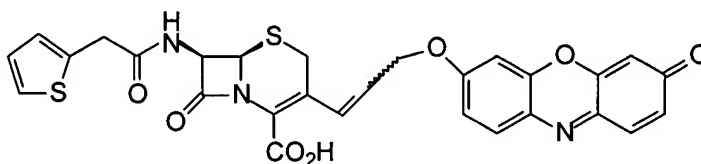
and wherein ~~R and R'~~ are as defined in claim 1, R₃ is a linker for the fluorescent donor, X is H, F, Cl, Br, or CO₂R', and Y is N, CH, C-CN, or C-CF₃.

3. (Currently amended) The compound of claim 2, wherein the linker is selected from the group consisting of a direct bond to a heteroatom in the fluorescent moiety, --O(CH₂)_n--, --S(CH₂)_n--, --NR₂(CH₂)_n--, --N⁺R₂(CH₂)_n--, --OCONR₂(CH₂)_n--, --O₂C(CH₂)_n--, --SCSNR₂(CH₂)_n--, --SCSO(CH₂)_n--, --S(CH₂)_nCONR₂(CH₂)_m, --S(CH₂)_nNR₂CO(CH₂)_m, and

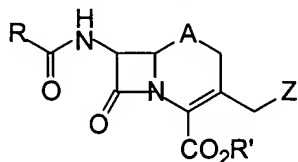


in which R_2 is as previously defined; and m and n are each independently integers from 1 to 4.

4. (Previously presented) A compound having the structure:



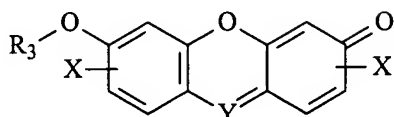
5. (Withdrawn) A method for detecting the presence of β -lactamase activity in a sample, comprising contacting the sample with at least one compound of general formula I:



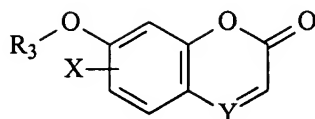
(I)

in which R is a benzyl, 2-thienylmethyl, or cyanomethyl group, or a quencher; R' is selected from the group consisting of H, physiologically acceptable salts or metal, ester groups, ammonium cations, $--CHR_2OCO(CH_2)_nCH_3$, $--CHR_2OCOC(CH_3)_3$, in which R_2 is selected from the group consisting of H and lower alkyl, acylthiomethyl, acyloxy-alpha-benzyl, deltabutyrolactonyl, methoxycarbonyloxymethyl, phenyl, methylsulphinylmethyl, β -morpholinoethyl, dialkylaminoethyl, and dialkylaminocarbonyloxymethyl; A is selected from the group consisting of S, O, SO, SO_2 and CH_2 ; and Z is a donor fluorescent moiety.

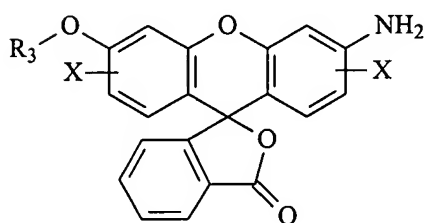
6. (Withdrawn) The method of claim 5, wherein said sample has a β -lactamase reporter gene.
7. (Withdrawn) The method of claim 6, wherein said β -lactamase reporter gene is in a mammalian cell.
8. (Withdrawn) The method of claim 5, wherein samples having β -lactamase activity are separated from samples having no β -lactamase activity by fluorescent-activated cell sorting.
9. (Withdrawn) The method of claim 5, wherein the β -lactamase activity results from a β -lactamase enzyme that was prepared by mutagenesis of another β -lactamase enzyme.
10. (Withdrawn) The method of claim 5, wherein said compound is a membrane permeant derivative.
11. (Withdrawn) The method of claim 5, wherein the donor fluorescent moiety is selected from the group consisting of:



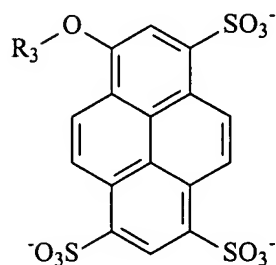
(II)



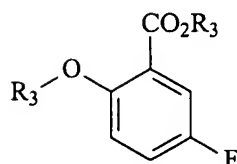
(III)



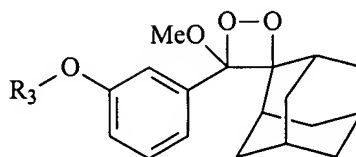
(IV)



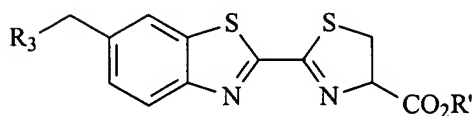
(V)



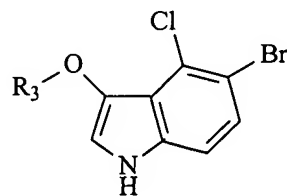
(VI)



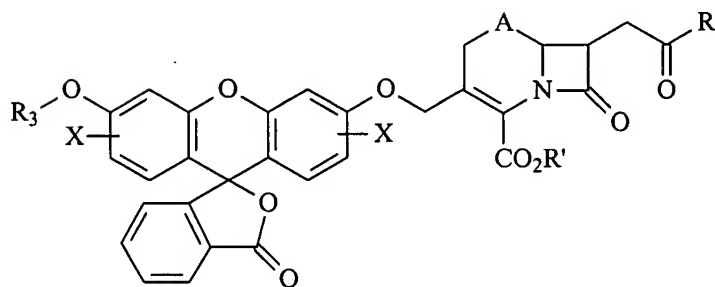
(VII)



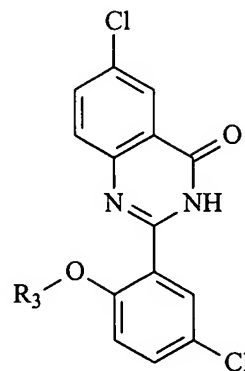
(VIII)



(IX)



(X)

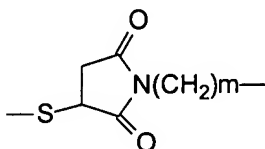


(XI)

R₃ is a linker for the fluorescent donor, X is H or lower alkyl, and Y is N or O.

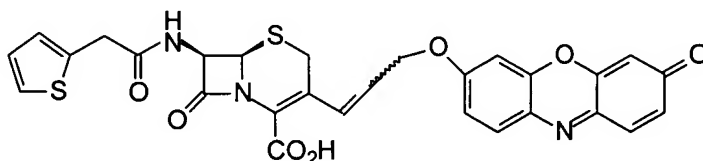
12. (Withdrawn) The method of claim 11, wherein the linker is selected from the group consisting of a direct bond to a heteroatom in the fluorescent moiety,

--O(CH₂)_n--, --S(CH₂)_n--, --NR₂(CH₂)_n--, --N⁺R₂(CH₂)_n--, --OCONR₂(CH₂)_n--, --O₂C(CH₂)_n--, --SCSNR₂(CH₂)_n--, --SCSO(CH₂)_n--, --S(CH₂)_nCONR₂(CH₂)_m--, --S(CH₂)_nNR₂CO(CH₂)_m, and



in which R₂ is as previously defined; and m and n are each independently integers from 0 to 4.

13. (Withdrawn) The method of claim 5, wherein the compound has the structure:

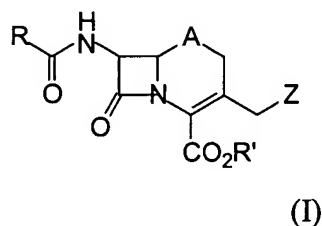


14. (Withdrawn) A method for determining whether a compound of claim 1 is a substrate for a β -lactamase enzyme, comprising: contacting said compound with a sample containing said β -lactamase enzyme; exciting at the wavelength for the said compound when cleaved; and measuring fluorescence.

15. (Withdrawn) The method of claim 14, wherein said compound is a membrane permeant derivative.

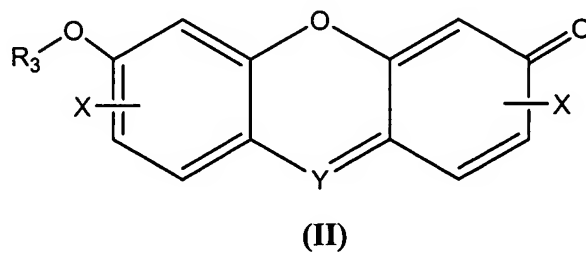
16. (Withdrawn) The method of claim 14, wherein said β -lactamase enzyme has been prepared by mutagenesis of another β -lactamase enzyme.

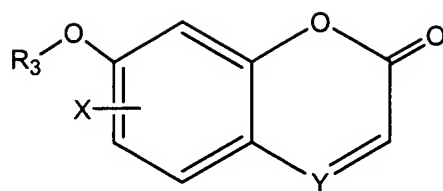
17. (New) A compound having the formula:



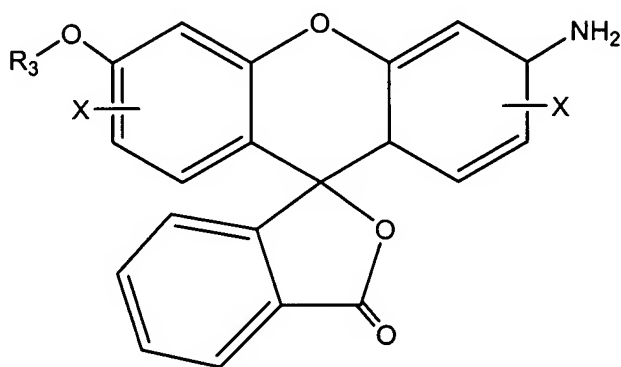
in which R is a benzyl, 2-thienylmethyl, or cyanomethyl group; R' is selected from the group consisting of H, alkyl, physiologically acceptable salts or metal, an ammonium cation, $--CHR_2OCO(CH_2)_nCH_3$, $--CHR_2OCOC(CH_3)_3$, in which R_2 is selected from the group consisting of H and lower alkyl, deltabutyrolactonyl, methoxycarbonyloxymethyl, phenyl, methylsulphinylmethyl, β -morpholinoethyl, dialkylaminoethyl, and dialkylaminocarbonyloxymethyl; A is selected from the group consisting of S, O, SO, SO_2 and CH_2 ; and Z is a donor fluorescent moiety.

18. (New) The compound of claim 17, wherein the donor fluorescent moiety is selected from the group consisting of:

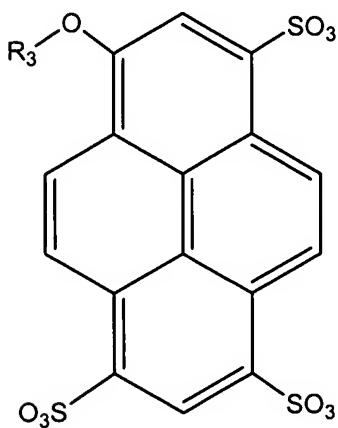




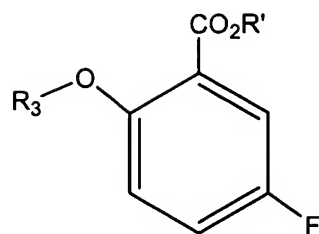
(III)



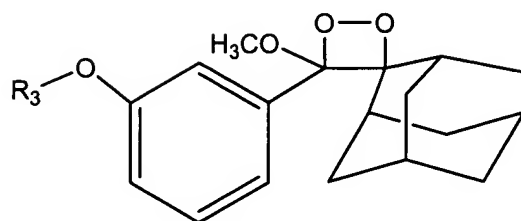
(IV)



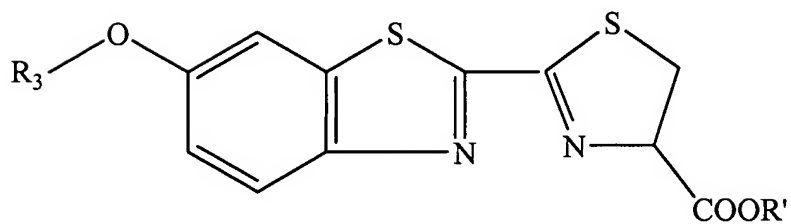
(V)



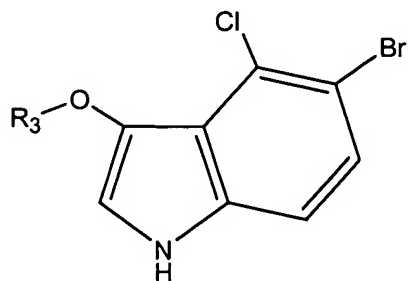
(VI)



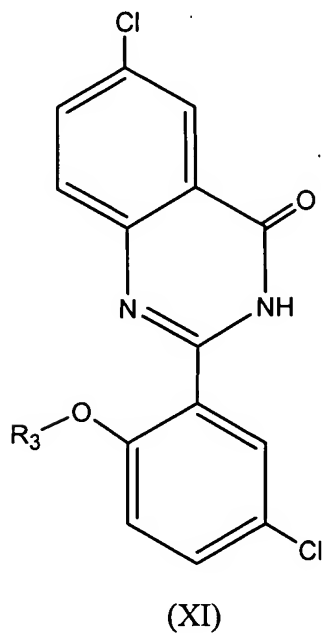
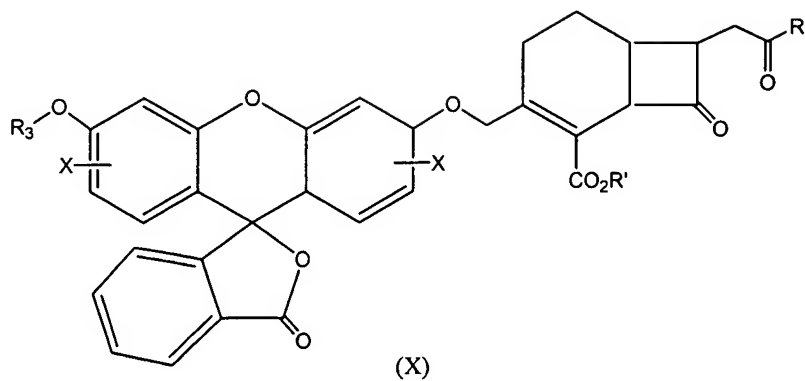
(VII)



(VIII)



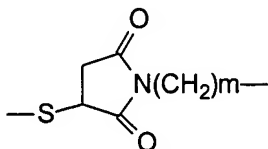
(IX)



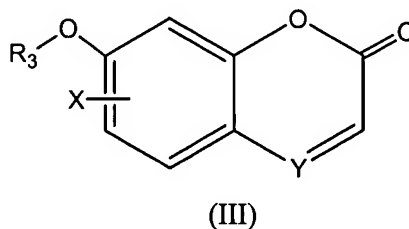
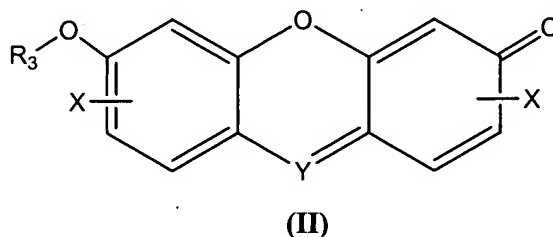
wherein R_3 is a linker for the fluorescent donor, X is H, F, Cl, Br, or CO_2R' , and Y is N, CH, C-CN, or C- CF_3 .

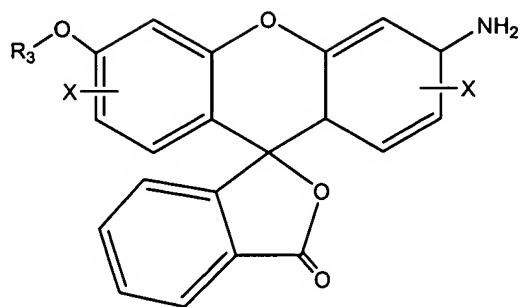
19. (New) The compound of claim 18, wherein R_3 is selected from the group consisting of a direct bond to a heteroatom in the fluorescent moiety,

--O(CH₂)_n--, --S(CH₂)_n--, --NR₂(CH₂)_n--, --OCONR₂(CH₂)_n--, --O₂C(CH₂)_n--, --
SCSNR₂(CH₂)_n--, --SCSO(CH₂)_n--, --S(CH₂)_nCONR₂(CH₂)_m, --S(CH₂)_nNR₂CO(CH₂)_m,
and

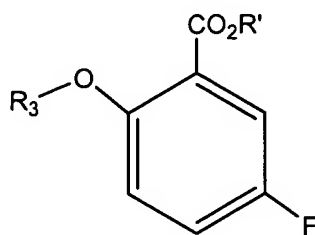


20. (New) The compound of claim 1, wherein the donor fluorescent moiety is selected from the group consisting of:

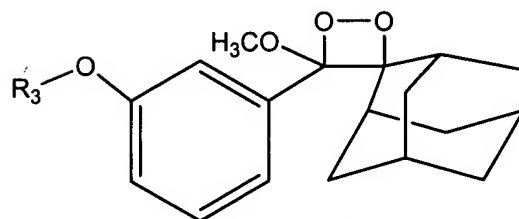




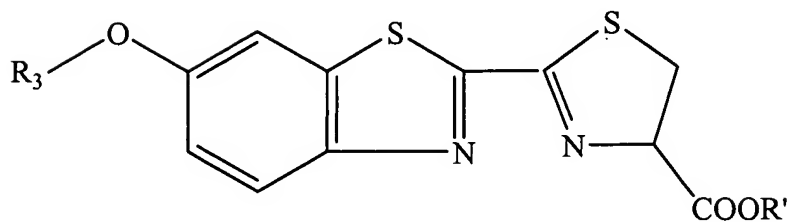
(IV)



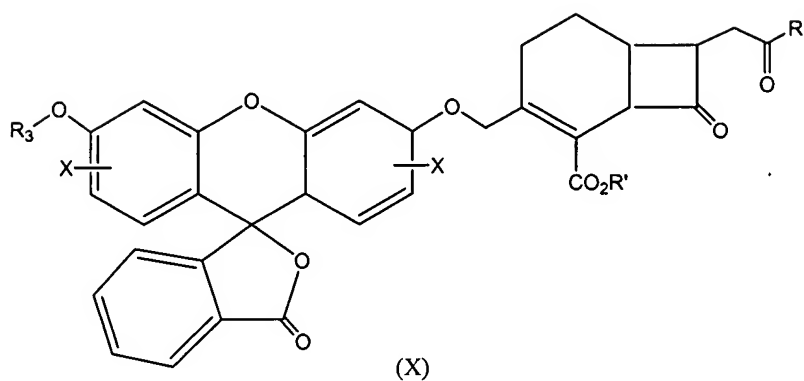
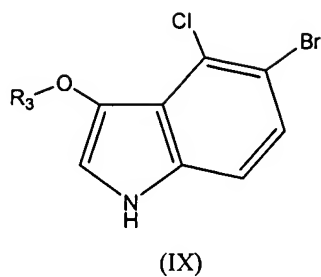
(VI)

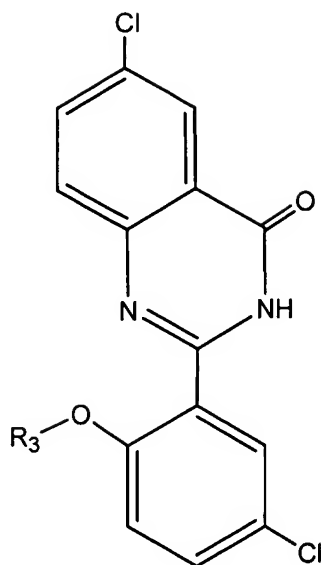


(VII)



(VIII)



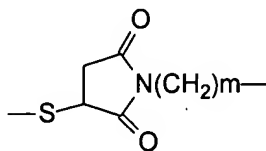


(XI)

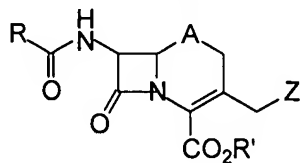
and wherein R₃ is a linker for the fluorescent donor, X is H, F, Cl, Br, or CO₂R', and Y is N, CH, C-CN, or C-CF₃.

21. (New) The compound of claim 20, wherein R₃ is selected from the group consisting of a direct bond to a heteroatom in the fluorescent moiety,

--O(CH₂)_n--, --S(CH₂)_n--, --NR₂(CH₂)_n--, --OCONR₂(CH₂)_n--, --O₂C(CH₂)_n--, --SCSNR₂(CH₂)_n--, --SCSO(CH₂)_n--, --S(CH₂)_nCONR₂(CH₂)_m, --S(CH₂)_nNR₂CO(CH₂)_m, and



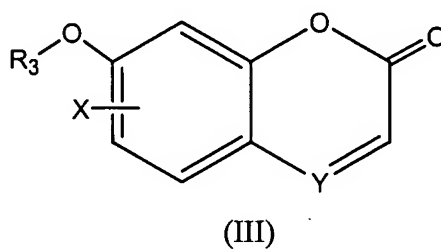
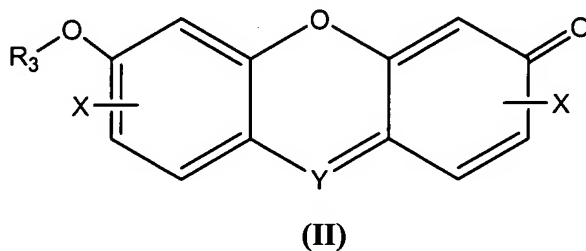
22. (New) A compound having the formula:

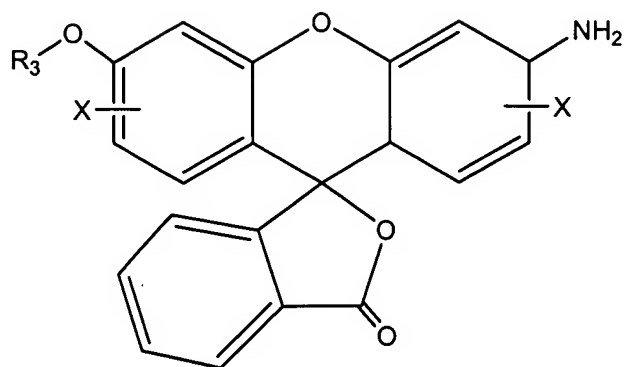


(I)

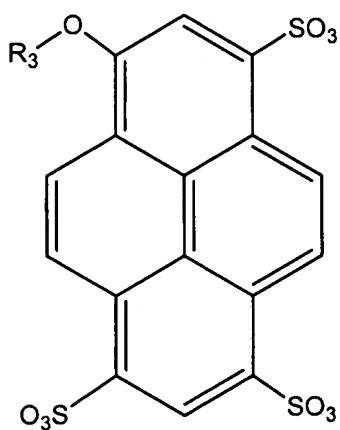
in which R is a benzyl or cyanomethyl group; R' is selected from the group consisting of H, alkyl, physiologically acceptable salts or metal, an ammonium cation, --CHR₂OCO(CH₂)_nCH₃, --CHR₂OCOC(CH₃)₃, in which R₂ is selected from the group consisting of H, lower alkyl, thioacetyl, alpha-acyloxy-benzyl, deltabutyrolactonyl, methoxycarbonyloxymethyl, phenyl, methylsulphinylmethyl, β-morpholinoethyl, dialkylaminoethyl, and dialkylaminocarbonyloxymethyl; A is selected from the group consisting of S, O, SO, SO₂ and CH₂; and Z is a donor fluorescent moiety.

23. (New) The compound of claim 22, wherein the donor fluorescent moiety is selected from the group consisting of:

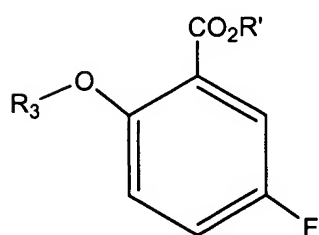




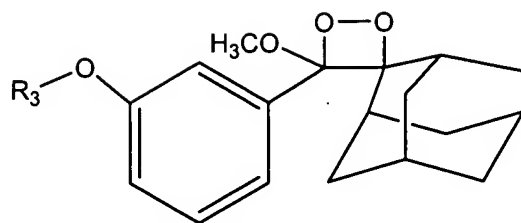
(IV)



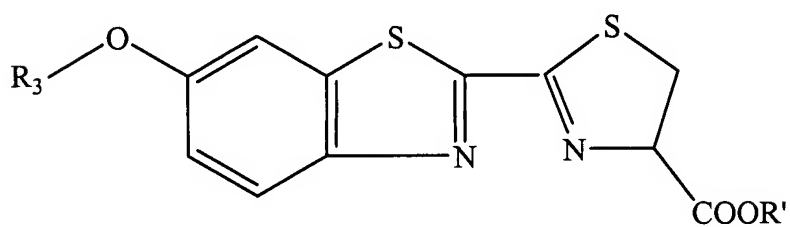
(V)



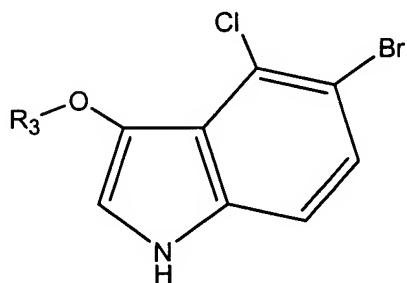
(VI)



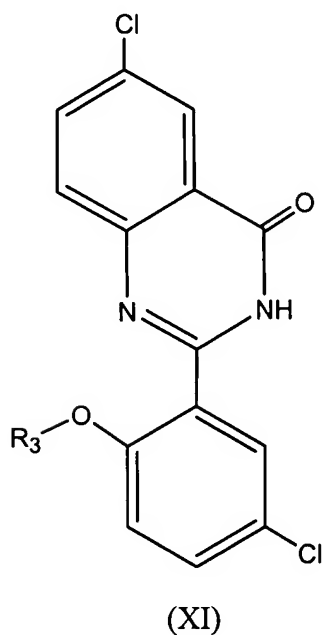
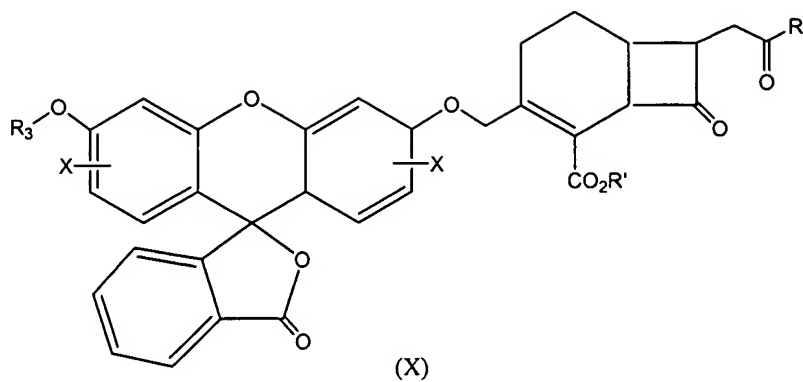
(VII)



(VIII)



(IX)



wherein R_3 is a linker for the fluorescent donor, X is H, F, Cl, Br, or CO_2R' , and Y is N, CH, C-CN, or C-CF₃.

24. (New) The compound of claim 23, wherein R_3 is selected from the group consisting of a direct bond to a heteroatom in the fluorescent moiety, $--O(CH_2)_n--$, $--S(CH_2)_n--$, $--$

$\text{NR}_2(\text{CH}_2)_n$ --, -- $\text{OCONR}_2(\text{CH}_2)_n$ --, -- $\text{O}_2\text{C}(\text{CH}_2)_n$ --, -- $\text{SCSNR}_2(\text{CH}_2)_n$ --, -- $\text{SCSO}(\text{CH}_2)_n$ --, -
 $\text{S}(\text{CH}_2)_n\text{CONR}_2(\text{CH}_2)_m$, -- $\text{S}(\text{CH}_2)_n\text{NR}_2\text{CO}(\text{CH}_2)_m$, and

